

Date: \_\_\_\_\_

### Chapter 13 Lesson B: Relate Parts to its Whole (13.B.1)

Q1. The ice creams below are  $\frac{1}{2}$  of all the ice creams that Serene has.



**parts**  
**whole**

How many ice creams does Serene have altogether?

- First we look at the fraction  $\Rightarrow$  half or  $\frac{1}{2} \Rightarrow$  we have 2 groups.
- Then we count the ice creams = 5 ice creams in one group.

$\frac{1}{2}$	$\frac{1}{2}$
5	? 5

- We have 5 in each group so we can either add  $5 + 5 = 10$ ,  
or we can multiply the number of groups  $\times$  number of items  
in each group:

$$2 \text{ groups} \quad \times \quad 5 \text{ ice creams} = 10$$

$$\begin{array}{r} 5+5=10 \\ 2\times 5=10 \end{array}$$

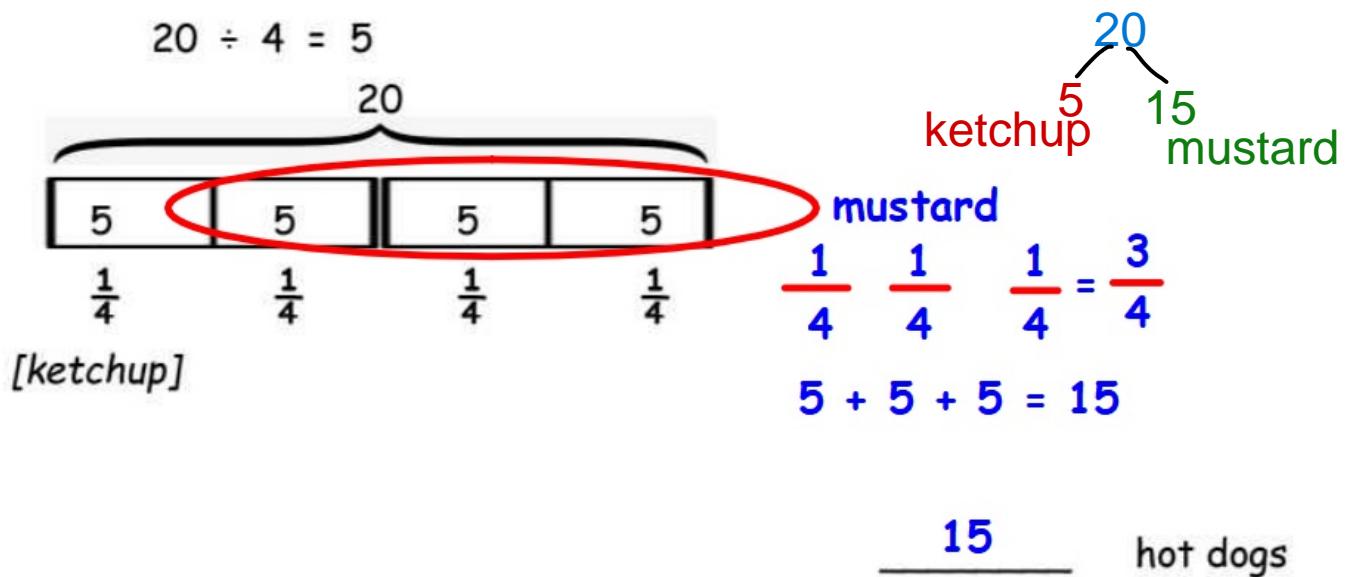
$$\underline{10} \quad \text{ice creams}$$

Q2. Mike bought 20 hot dogs.

$\frac{1}{4}$  of the hot dogs had ketchup on them while the rest had mustard.

How many hot dogs have mustard on them?

- First look at the fraction  $\Rightarrow$  one quarter or  $\frac{1}{4} \Rightarrow$  we have 4 groups.
- We know all the items are 20 so we equally divide 20 into 4 groups.

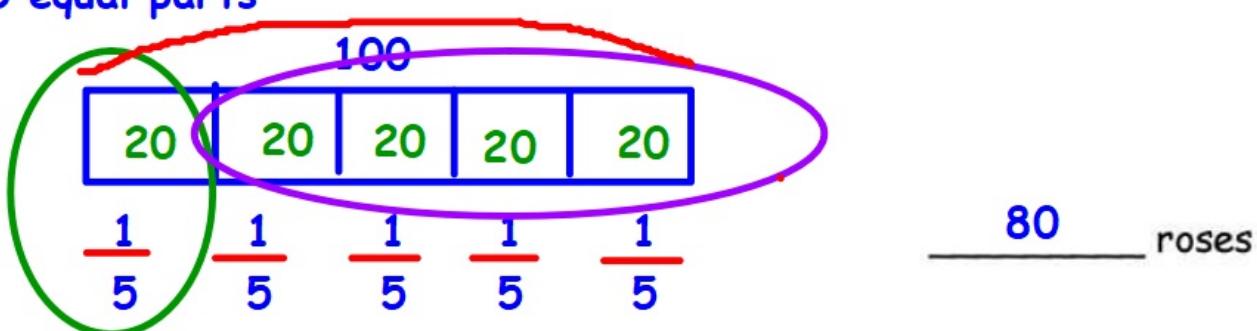


Q3. Mariam has 100 roses.

She gives  $\frac{1}{5}$  of them to her friend.

How many roses are left?

5 equal parts



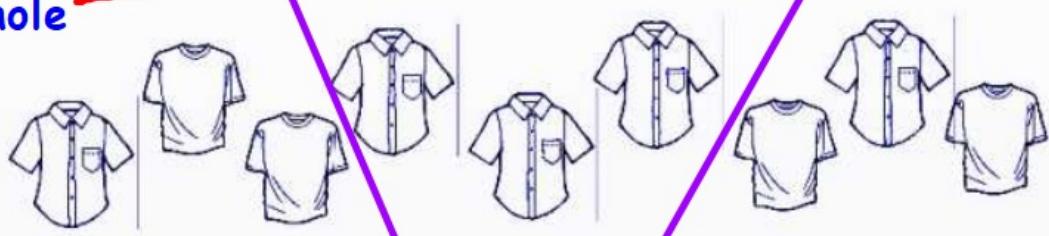
$$100 - 20 = 80 \text{ left}$$

53

She gave 20 roses to her friend.

Q4. These are  $\frac{3}{6}$  of the shirts in a closet.

whole

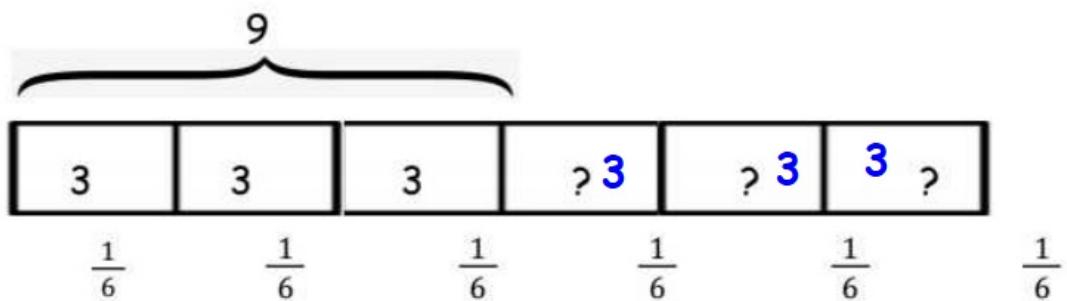


a) How many shirts are there altogether?

- By looking at the fraction  $\frac{3}{6}$  , we can find the number of groups:

**6 groups in total**, but what we can see is only 3 parts of 6.

- The shirts we can see are 9. We can divide 9 into **3 groups** of 3.



groups  $\times$  items =

$$6 \quad \times \quad 3 \quad = \quad 18$$

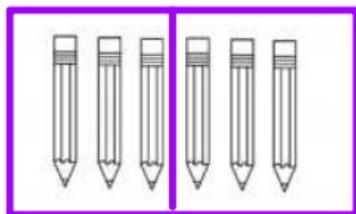
18 shirts

b) How many shirts are missing?

$$18 - 9 = 9$$

9 shirts

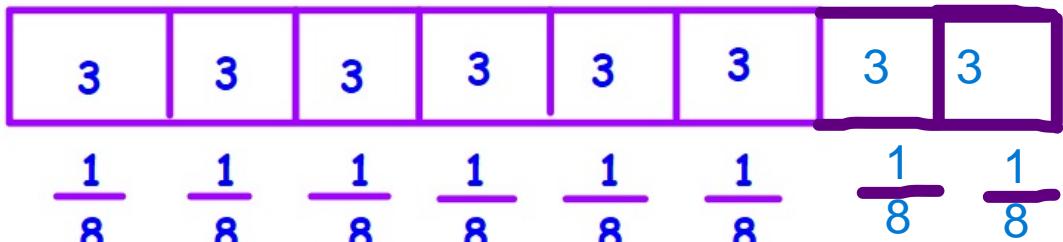
Q5. Mark has many pencils in his pencil case, he takes out  $\frac{2}{8}$  only.



parts

whole

a) How many pencils were in his pencil case in the beginning?



b) If he breaks 5 of them, what is the fraction of the pencils left unbroken?

$$24 - 5 = 19 \text{ left}$$

$$\frac{19}{24}$$

$$\frac{19}{24} \text{ of } \cancel{pencils}$$